

### **REMARKS**

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 34-38, 60-63 and 73-99 are pending in the subject application. Claims 1-33, 39-59 and 64-72 were previously canceled.

Claims 34-38, 60-63 and 73-99 stand rejected under 35 U.S.C. §101 and/or 35 U.S.C. §102.

Claim 80 was amended for clarity and consistency of language.

The specification was amended to address the objection directed to the Abstract. The amendment to the specification does not introduce new matter.

### **35 U.S.C. §101 REJECTIONS**

Claims 34-38, 60-63 and 73-99 stand rejected under 35 U.S.C. §101 as provided on pages 2-3 of the above-referenced Office Action. Specifically, claims 34-38, 60-63 and 73-99 are rejected under 35 U.S.C. §101 on the grounds that these claims are clearly claiming the same invention as that of claims 1-61 of prior U.S. Patent No. 6,607,530 (the '530 patent). Applicants respectfully traverse.

As these claims were rejected solely on *statutory double patenting* grounds, Applicants have not addressed herein any possible rejection that could have been made on grounds of *non-statutory and/or obviousness type double patenting*.

Before proceeding with an analysis of these claim groupings, Applicants first refer to the MPEP and applicable case law regarding assessing claims as to statutory double patenting.

As provided in MPEP 804: "[t]here are generally two types of double patenting rejections. One is the "same invention" type double patenting rejection based on 35. U.S.C. 101 which states in the singular that an inventor "may obtain a patent." The second is the

"nonstatutory-type" double patenting rejection based on a judicially created doctrine grounded in public policy and which is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinguishing from claims in a first patent."

As also provided in MPEP 804(II):

Where the claims of an application are substantively the same as those of a first patent, they are barred under 35 U.S.C. 101 - the statutory basis for a double patenting rejection. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ...." ***Thus, the term "same invention," in this context, means an invention drawn to identical subject matter.*** *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957)<sup>2</sup>. Where the claims of an application are not the "same" as those of a first patent, but the grant of a patent with the claims in the application would unjustly extend the rights granted by the first patent, a double patenting rejection under nonstatutory grounds is proper. (Bold italics added for emphasis)

In regards to double patenting, MPEP 804(II) also include the following remarks cautioning against confusing domination and double patenting.

Domination and double patenting should not be confused. They are two separate issues. One patent or application "dominates" a second patent or application when the first patent or application has a broad or generic claim which fully encompasses or reads on an invention defined in a narrower or more specific claim in another patent or application. Domination by itself, i.e., in the absence of statutory or nonstatutory double patenting grounds, cannot support a double patenting rejection. *In re Kaplan*, 789 F.2d 1574, 1577-78, 229 USPQ 678, 681 (Fed. Cir. 1986); and *In re Sarrett*, 327 F.2d 1005, 1014-15, 140 USPQ 474, 482 (CCPA 1964). However, the presence of domination does not preclude double patenting. See, e.g., *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968).

MPEP 804(II)(A) also provides the following further guidance as to how one can determine if the same invention or subject matter is being claimed.

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<sup>2</sup> Copy of *In re Vogel* and *In re Ockert* attached.

In determining whether a statutory basis for a double patenting rejection exists, the question to be asked is: Is the same invention being claimed twice? 35 U.S.C. 101 prevents two patents from issuing on the same invention. "Same invention" means identical subject matter. *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1984); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957).

A reliable test for double patenting under 35 U.S.C. 101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). Is there an embodiment of the invention that falls within the scope of one claim, but not the other? If there is such an embodiment, then identical subject matter is not defined by both claims and statutory double patenting would not exist. For example, the invention defined by a claim reciting a compound having a "halogen" substituent is not identical to or substantively the same as a claim reciting the same compound except having a "chlorine" substituent in place of the halogen because "halogen" is broader than "chlorine." On the other hand, claims may be differently worded and still define the same invention. Thus, a claim reciting a widget having a length of "36 inches" defines the same invention as a claim reciting the same widget having a length of "3 feet."

If it is determined that the same invention is being claimed twice, 35 U.S.C 101 precludes the grant of the second patent regardless of the presence or absence of a terminal disclaimer. *Id.*

Based on the foregoing, it can be seen that same invention means the same subject matter is being claimed in the allegedly conflicting claims and if there is not two-way infringement of the claims of the '530 patent and the pending patent application (*i.e.*, two-way infringement is where the claims of the patent read on the claims of the patent application and the claims of the patent application also read on the claims of the patent), there can be no statutory double patenting. If the claims of the patent or the patent application would read on the claims of the other (*i.e.*, one-way infringement), there is no statutory double patenting (*i.e.*, this might be an indication of domination). Rather, and as provided in the MPEP, if the same subject matter is not being claimed in the allegedly conflicting claims, the inquiry then continues with an consideration of whether or not non-statutory double patenting is present nonetheless.

In the '530 patent, claims 1-32 are directed to a method for stabilizing adjacent vertebrae of a spine; claims 33-40 are directed to a spinal fixation kit, claim 41 is directed to a method for fixing two adjacent vertebrae to facilitate bony union thereof; claims 42-53 are directed to another method for stabilizing adjacent vertebrae of a spine; claims 54-57 are directed to another spinal fixation kit and claims 58-61 are directed to yet another spinal fixation kit.

First of all, comparing the claims of the '530 patent with the claims of the subject application it can be seen that none of the claim are directed to an implantable spinal fixation system (claims 34, 35, 73-79), a spinal system (claim 36-37), a spinal fusion kit (claim 38) a method for stabilizing adjacent segments of a mammalian bone (claims 80-90); or a spinal fixation system (claim 91-92). As such, it appears that each of these claims are directed to inventions that are clearly could not be directed to the same subject matter as the subject matter of claims 1-61 of the '530 patent as described in more detail below. Applicants do not believe that as a general principle one can assert that the method steps set forth in a method or process claim necessarily read on the structural elements of a product claim.

#### **Claims 34, 35, 73-79 of subject application**

As indicated above these claims are directed to an implantable spinal fixation system that includes an arcuate implant member. Such an arcuate implant member is sized so that it can extend between two adjacent vertebrate and so it also extends through a preformed aperture that is formed in each of the two adjacent vertebrae. In other words, the arcuate member is sized so it has a length sufficient to extend between two adjacent vertebrae. Such an arcuate member also is sized (*e.g.*, length and diameter) so that it can pass or extend through a preformed aperture formed in each of the two adjacent vertebrae. The following addresses these claims of the subject application as to the following grouping of claims of the '530 patent.

Claims 1-32 of the '530 patent

As indicated above, in the '530 patent claims 1-32 are directed to a method for stabilizing adjacent vertebrae of a spine of which claim 1 and 6 are independent claims.

*Claim 1 of the '530 patent*

Claim 1 of the '530 patent includes the following step which is not found in the method of claim 34, nor in any of the claims depending from claim 34.

implanting an arcuate fixation member between the vertebrae and through a preformed aperture in each of the adjacent vertebrae.

While the resultant of the method step of claim 1 might be a spinal implantable fixation system such as that set forth in claim 34, this does not mean that the method step of claim 1 of the '530 patent is necessarily claiming the structure as set forth in the implantable spinal fixation system of claim 34. Also, the structural language in claim 34 directed to the sizing of the arcuate member is not recited or found in the language of claim 1.

Thus, the method for stabilizing adjacent vertebrae of a spine according to claim 1, as well as any claims dependent therefrom of the '530 patent do not read on claimed structural features of claim 34 and neither do these features of claim 34 read on all of the method steps of claim 1.

*Claim 6 of the '530 patent*

Claim 6 of the '530 patent includes the following steps which are not found in the spinal fixation system of claim 34, nor in any of the claims depending from claim 34.

providing a positioning apparatus including two guide sleeves, each guide sleeve having a long axis;

locating the two guide sleeves with respect to the adjacent vertebrae such that a vertex formed by the long axis of each guide sleeve is located in the intervertebral space for the adjacent vertebrae;

forming an aperture in each of the adjacent vertebrae using the guide sleeves; and  
inserting an implant into the apertures formed in each of the adjacent vertebrae so that the implant extends between the adjacent vertebrae and through the intervertebral space.

While the resultant of the method steps of claim 6 might be a spinal implantable fixation system such as that set forth in claim 34, this does not mean that the method steps of claim 6 of the '530 patent are necessarily directed to the structure of the system of claim 34. Also, the structural language in claim 34 directed to the sizing of the arcuate member is not recited or found in the language of claim 6.

Thus, the method for stabilizing adjacent vertebrae of a spine according to claim 6 of the '530 patent, as well as any claims dependent therefrom, do not read on the claimed structural features set forth in claim 34 and neither could these structural features of claim 34 infringe all of the method steps of claim 6.

Claims 33-40 of the '530 patent

As indicated above, claims 33-40 of the '530 patent are directed to a spinal fixation kit of which claim 33 is the sole independent claim. As recited in claim 33, such a spinal fixation kit includes the following structure, which is not found in the implantable spinal fixation system of claim 34, nor in any of the claims depending from claim 34.

two guide sleeves, each guide sleeve having a long axis,  
a cross member,  
an intravertebral spacer,  
wherein the guide sleeves are pivotably mounted to the cross member,  
and  
wherein the intravertebral spacer is spaced from the cross member and interconnected thereto so as to be between pivot points for the guide sleeves;  
and

Thus, the spinal fixation kit according to claim 33 do not read on the claimed structural features of the implantable spinal fixation system of claim 34 and neither do these features of claim 34 read on all of the elements of claim 33.

Claim 41 of the '530 patent

As indicated above, claim 41 is directed to a method for fixing two adjacent vertebrae to facilitate bony union thereof. The following method steps of claim 41 are not found in the spinal fixation system of claim 34, nor in the claims depending from claim 34.

- performing a disectomy of an intervertebral space;
- transecting a segment of bone from a surface of a vertebra bordering the intervertebral space;
- freeing the segment of bone from the surface of the vertebra from a horizontal to a vertical plane;
- securing the segment of bone in the vertical plane to span the intervertebral space, thereby fixing two adjacent vertebrae to facilitate a bony union thereof.

It is abundantly clear that the method steps according to claim 41 do not read on the claimed structural features of the implantable spinal fixation system of claim 34 and neither do these features of claim 34 read on all of the method steps of claim 33.

Claims 42-53 of the '530 patent

As indicated above, claims 42-53 of the '530 patent are directed to another method for stabilizing adjacent vertebrae of a spine of which claim 42 is the sole independent claim. The following method steps of claim 42 are not found in the spinal fixation system of claim 34, nor in the claims depending from claim 34.

- providing a positioning apparatus including a pivot arm that is rotatable about a pivot point;
- locating the positioning apparatus with respect to the adjacent vertebrae such that the pivot point is disposed between the adjacent vertebrae;
- forming an aperture in each of the adjacent vertebrae; and inserting an implant into the apertures formed in each of the adjacent vertebrae so that the

implant extends between the adjacent vertebrae and through the intervertebral space.

It is abundantly clear that the method steps according to claim 41 do not read on the claimed structural features of the implantable spinal fixation system of claim 34 and neither do these features of claim 34 read on all of the method steps of claim 33.

Claims 54-57 of the '530 patent

As indicated above, claims 54-57 are directed to another spinal fixation kit and claims 58-61 are directed to yet another spinal fixation kit.

The following elements of the spinal fixation kit of claim 54 are not found in the spinal fixation system of claim 34, nor in the claims depending from claim 34.

a cutter bracket sub-system ... , wherein the cutter bracket sub-system includes:

a frame being configured so as to be removably secured to adjacent vertebrae; a pivot arm rotatably mounted to the frame; and a drill or an ablation energy source that can provide a curved aperture in a vertebrae.

The following elements of the spinal fixation kit of claim 58 are not found in the spinal fixation system of claim 34, nor in the claims depending from claim 34.

a cutting device ... , wherein the cutting device includes a cutting element that is moveable from a first position in which the cutting element is disposed within a housing of the device and a second position in which a portion of the cutting element is disposed outside of the device housing.

It is abundantly clear that the above-described elements according to either of claims 54 or 58 method steps do not read on the claimed structural features of the implantable spinal fixation system of claim 34 and neither do these features of claim 34 read on all of the above-described elements of either of claims 54 or 58.



In view of the foregoing remarks, Applicants submit that the same subject matter or the same invention is not being claimed in claims 34, 35 and 73-39 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 34, 35 and 73-39 are allowable.

### **Claims 36-37 of subject application**

As indicated above these claims are directed to a spinal system including, *inter alia*, an arcuate member that is surgically implanted within a mammalian spine so as to extend between two adjacent vertebrae of the spine, the arcuate member being configured so as to extend through a preformed aperture in each of the two adjacent vertebrae.

The discussion above regarding claims 34, 35 and 73-39 details what elements, steps and the like of the claims of the '530 patent are not found in claims 34, 35, and 73-79 and also why the features of claims 34, 35 and 73-39 could not be found in the claims of the '530 patent. It is respectfully submitted that the above-described elements, steps and the like of the claims of the '530 patent also are not found in claims 36 and 37 of the subject application. It also is respectfully submitted that the features of claims 36-37 also are not found in the claims of the '530 patent. Thus, the claims of the '530 patent do not read on claims 36-37 of the subject application and claims 36-37 do not read on the claims of the '530 patent.

Therefore, the same subject matter or the same invention is not being claimed in claims 36 and 37 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 36 and 37 are allowable.

### **Claim 38 of subject application**

As indicated above, this claim is directed to a spinal fusion kit including, *inter alia*, an arcuate fixation member that is configured so as to extend between two adjacent vertebrae and through a preformed aperture in each of the two adjacent vertebrae.

*Claim 1 of the '530 patent*

Claim 1 of the '530 patent includes the following step which is not found in the spinal fusion kit of claim 384.

implanting an arcuate fixation member between the vertebrae and through a preformed aperture in each of the adjacent vertebrae.

While the spinal fixation kit of claim 38 may provide an arcuate fixation member that could be implanted between the vertebrae and through a preformed aperture in each of the adjacent vertebrae according to the implanting step of claim 1, the arcuate fixation member feature of the spinal fixation kit of claim 38 alone does not and cannot be claiming the same subject matter (*i.e.*, the implanting step) of claim 1. Correspondingly, the implanting step of claim 1 cannot be claiming the structural or product language of the arcuate fixation member feature of the spinal fixation kit of claim 38 of the subject application.

Thus, the method for stabilizing adjacent vertebrae of a spine according to claim 1 of the '530 patent, as well as any claims dependent therefrom of the '530 patent do not read on the claimed structural features of the spinal fixation kit of claim 38 and neither do these features of claim 38 read on all of the method steps of claim 1.

*Other claims of the '530 patent (other than claim 1)*

The discussion above regarding claims 34, 35 and 73-39 details what elements, steps and the like of the claims of the '530 patent are not found in claims 34, 35, and 73-79 and also why the features of claims 34, 35 and 73-39 could not be found in the claims of the '530 patent. It is respectfully submitted that the above-described elements, steps and the like of the claims of the '530 patent other than claim 1 (which is discussed above) also are not found in claim 38 of the subject application. It also is respectfully submitted that the features of claim 38 also are not found in the other claims of the '530 patent. Thus, the claims of the '530 patent do not read on claim 38 of the subject application and claim 38 does not read on the claims of the '530 patent.

Therefore, the same subject matter or the same invention is not being claimed in claim 38 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claim 38 is allowable.

### **Claims 60-63 of subject application**

Claims 60-63 are directed to a method for stabilizing adjacent vertebrae of a spine including, *inter alia*, the steps of: providing a cutting device including a rotating cutting implement having a midpoint; positioning the cutting device proximal a surface of the adjacent vertebrae and so that the rotating cutting implement midpoint is located between the adjacent vertebrae; rotatably cutting a common channel in the adjacent vertebrae with the rotary cutting implement; and inserting a implant into the common channel so that the implant extends between the adjacent vertebrae and through the intervertebral space, the space between the adjacent vertebrae.

### *Claims 1-57 of the '530 patent*

The discussion above regarding claims 34, 35 and 73-39 details what elements, steps and the like of the claims of the '530 patent are not found in claims 34, 35, and 73-79 and also why the features of claims 34, 35 and 73-39 could not be found in the claims of the '530 patent. It is respectfully submitted that the above-described elements, steps and the like of claims 1-57 of the '530 patent also are not found in claims 60-63 of the subject application. It also is respectfully submitted that the features of claims 60-63 also are not found in claims 1-57 of the '530 patent (*i.e.*, do not contain or recite any steps that corresponding to the providing, positioning and rotatably cutting step of any of claims 60-63). Thus, claims 1-57 of the '530 patent do not read on claims 60-63 of the subject application and claims 60-63 do not read on claims 1-57 of the '530 patent.

*Claims 58-61 of the '530 patent*

Claims 58-61 of the '530 patent that are directed to yet another spinal fixation kit where the spinal fixation kit of claim 58 includes, *inter alia*, a cutting device and a spinal fixation member, wherein the cutting device includes a cutting element that is moveable from a first position in which the cutting element is disposed within a housing of the device and a second position in which a portion of the cutting element is disposed outside of the device housing.

While one could argue that the cutting device as described in claim 58 might correspond to the cutting device set forth in the providing step of claim 60, it is abundantly clear that the spinal fixation kit does not in any way claim the following method steps of claim 60, namely positioning the cutting device proximal a surface of the adjacent vertebrae and so that the rotating cutting implement midpoint is located between the adjacent vertebrae; rotatably cutting a common channel in the adjacent vertebrae with the rotary cutting implement; and inserting a implant into the common channel so that the implant extends between the adjacent vertebrae and through the intervertebral space, the space between the adjacent vertebrae. Thus, claims 58-61 of the '530 patent do not read on claims 60-63 of the subject application and claims 60-63 do not read on the claims 58-61.

Therefore, the same subject matter or the same invention is not being claimed in claims 60-63 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 60-63 are allowable.

**Claims 80-90 of the subject application**

As indicated above claims 80-90 are directed to a method of stabilizing adjacent segments of a mammalian bone. In particular, the claims include implanting an arcuate fixation member so it extends between the adjacent bone segments and through a preformed aperture in each of the adjacent bone segments. In responding to the Office Action Applicants noticed some inconsistent claim language and thus amended claim 80 in the foregoing amendment for clarity and consistency.

In this regard, the Office Action apparently has taken issue with the prior remarks because the claims do not set forth use with a femur. In this regard, Applicants would respectfully submit that the Examiner is unduly limiting the language of the claims to the language used in the arguments and not what a femur can be broadly categorized as – namely a BONE.

As is known to those skilled in the art, the skeletal structure of a human being is composed of a number of **bones** (on average 206 bones) one of these bones is the femur. The spine does form a part of the skeletal structure; however, it is clear that the spine is only a portion of the skeletal structure not the entirety. Thus, a method directed solely to stabilizing a spine for example, simply is not the same as claiming a method that is directed to a bone.

One could argue that claims directed to a method of stabilizing adjacent segments of a mammalian bone dominate claims directed to a method for stabilizing a spine, however, as indicated in the discussions above, the MPEP makes clear that domination in of itself is claiming the same subject matter.

Also while the kit related claims may include devices or apparatuses that could be used to stabilize adjacent segments of a bone, this does not describe the method steps for doing such stabilization.

It also appears that the categorization of claims by the language of the preamble also is being ignored as having little patentable weight. Regardless of the this, the language of the preamble for the method claims is indicative of where the language of the method steps are being directed and thus is at least a general indication whether or not the same subject matters is being claimed.

Therefore, the same subject matter or the same invention is not being claimed in claims 80-90 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 80-90 are allowable.

### **Claims 91-92 of subject application**

Claims 91-92 are directed to a spinal fixation system that includes, *inter alai*, a plurality of securing members, each securing member being configured so as to be secured respectively in one of the adjacent vertebrae; an arcuate member of a size sufficient to extend between the two adjacent vertebrate; and wherein each of the plurality of securing members is configured so as to mechanically engage separate portions of the arcuate member, thereby securing the arcuate member to each of the adjacent vertebrae.

The discussion above regarding claims 34, 35 and 73-39 details what elements, steps and the like of the claims of the '530 patent are not found in claims 34, 35, and 73-79 and also why the features of claims 34, 35 and 73-39 could not be found in the claims of the '530 patent. It is respectfully submitted that the above-described elements, steps and the like of the claims of the '530 patent also are not found in claims 91-92 of the subject application. It also is respectfully submitted that the features of claims 91-92 also are not found in the claims of the '530 patent. Thus, the claims of the '530 patent do not read on claims 91-92 of the subject application and claims 91-92 do not read on the claims of the '530 patent.

Therefore, the same subject matter or the same invention is not being claimed in claims 91-92 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 91-92 are allowable.

### **Claims 93-99 of the subject application**

Claims 93-99 are directed to a method for stabilizing adjacent vertebrae of a mammalian spine, that includes, *inter alia*, the steps of: providing a plurality of securing members, each securing member being configured so as to be secured respectively in one of the adjacent vertebrae and an arcuate member of a size sufficient to extend between the adjacent vertebrate; and securing one end portion of the arcuate member to one of the plurality of securing members and securing said one of the plurality of securing members to one of the adjacent vertebrae and securing another end portion of the arcuate member to another of the plurality of securing

members and securing said another of the plurality of securing members to the other of the adjacent vertebrae.

The discussion above regarding claims 34, 35 and 73-39 details what elements, steps and the like of the claims of the '530 patent are not found in claims 34, 35, and 73-79 and also why the features of claims 34, 35 and 73-39 could not be found in the claims of the '530 patent. It is respectfully submitted that the above-described elements, steps and the like of the claims of the '530 patent also are not found in claims 93-99 of the subject application. It also is respectfully submitted that the features of claims 93-99 also are not found in the claims of the '530 patent. In particular, Applicants would specifically note that none of the claims of the '530 patent contain or recite any steps corresponding to the providing and securing step of claims 93-99 of the present invention. Thus, the claims of the '530 patent do not read on claims 93-99 of the subject application and claims 93-99 do not read on the claims of the '530 patent.

Therefore, the same subject matter or the same invention is not being claimed in claims 93-99 of the subject application as was claimed in the '530 patent. Thus, it is respectfully submitted that claims 93-99 are allowable.

In sum, the claims of the present invention are directed to inventions that were not previously claimed. Also, the claims of the present invention are directed to inventions having elements, features or method steps in their independent claims that are different from the features, elements or method steps of the independent claims of the '530 patent. Thus, there is *no* correspondence possible between these claims of the present invention and the claims of the '530 patent. Accordingly, the claims of the present invention and the claims of the '530 patent do not and cannot read on each other.

Therefore, there can be no statutory double patenting and thus, Applicants respectfully request that this rejection be withdrawn.

Accordingly, it is respectfully submitted that claims 34-38, 60-63 and 73-99 satisfy the requirements of 35 U.S.C. §101 and, as such, are in a condition for allowance.

### 35 U.S.C. §102 REJECTIONS

The Examiner rejected claims 34-38, 60-63 and 73-99 under 35 U.S.C. §102(b) as being anticipated by Lumb [USP 3,426,364]. Applicants respectfully traverse. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference.

Lumb describes a prosthetic appliance for replacing one or more vertebrae. Such a prosthetic device includes a y-shaped element 12 that replaces a vertebrae and thus is disposed between two other vertebrae that are adjacent to ends of the y-shaped element. Arches 54 are secured to the y-shaped element and to the two other vertebrae. The arches 54 are secured to the other adjacent vertebrae by means of screws 50. Further, and as shown in the figures of Lumb, the arches are external to the surfaces of the vertebrae and are not disposed in channels or apertures formed in adjacent vertebrae.

It appears that the Office Action is asserting that element 50 in Lumb corresponds to a part of the arcuate implant and that there is nothing in the claims that preclude the interpretation that the arcuate implant. Applicants respectfully disagree.

As indicated previously element 50 is a screw ( see col. 3, lines 60-62) and thus is not part of the arch. It is abundantly clear from the figures and discussion in Lumb, that the arches are the elements in Lumb which extend between the natural vertebrae and the prosthetic device not the screws.

As described in Lumb, the screws can be used to secure curved metal braces 46 to the prosthetic and to the adjacent vertebrae (FIG. 1) or the screws can be used to rigidly secure the arches 54 to the prosthetic(s) and loosely securing the arches to the adjacent vertebrae by screws 50 (Fig. 5 thereof). In the later (Fig. 5), Lumb also teaches that the arches are loosely secured to



the adjacent vertebrae so as to provide limited articulate movement as if all connections were made rigid then a large number of vertebrae (natural and artificial) would be fused thus limiting the patient's freedom of movement unduly. See also col. 3, lines 47-62 and col. 4 lines 50-67. In view of the foregoing, the screws do not comprise a part of an implant device.

Also, nowhere does Lumb disclose or teach forming apertures in each of the adjacent vertebrae in which is received the arches.

Furthermore, there is no teaching or disclosure anywhere in Lumb describing stabilizing adjacent vertebrae as the disclosures and teachings in Lumb all include use of a prosthetic device to replace a natural vertebrae. Such a discussion is completely missing from Lumb because the invention in Lumb is directed to prosthetic appliances *to replace* one or more natural vertebrae. In other words, in Lumb a natural vertebrae that would be adjacent to another vertebrae is removed and replaced by a prosthetic device. The arches are provided and secured to the natural vertebrae that are adjacent to the one or more prosthetic appliances so as to secure the prosthetic appliance. Thus, it cannot be said that Lumb is disclosing stabilizing adjacent vertebrae because there are no natural adjacent vertebrae described in Lumb.

Moreover, certain of the method claims of the present invention (claims 80-90) are directed to stabilizing adjacent segments of a mammalian bone. This is not disclosed or taught anywhere in Lumb as the disclosure in Lumb is directed to the spine and in particular the replacement of a natural vertebrae. While the spine is part of the skeletal structure of a mammal, the disclosure in Lumb is so confined to the spine and elements of the spine, one could hardly assert that Lumb explicitly or inherently describes a technique for stabilizing bones in general.

In addition, certain of the method claims of the present invention (claims 60-63) are directed to cutting a channel in the adjacent vertebrae using a rotating element to cut the channel and inserting an implant in this channel. This is not disclosed or taught anywhere in Lumb nor could it be. As indicated above, the method and devices in Lumb are directed to replacing a natural vertebrae – not stabilizing adjacent vertebrae.

There also is no disclosure anywhere in Lumb of rotating an arcuate member of a size sufficient to extend between the two adjacent vertebrate from a first position to a second position such as provided in claims 95-99 of the present invention. Such a concept is completely different from that described in Lumb, which describes replacing a natural vertebrae with a prosthetic device and coupling metal braces 46 to the prosthetic and to the adjacent vertebrae by screws 50 as described above. Such a configuration of prosthetic device and arches essentially precludes rotating the arches from a first position to a second position.

In view of the foregoing, it is clear that Lumb does not describe or disclose the various inventions of the present invention. It also is respectfully submitted that there also is no teaching or suggestion in Lumb for modifying the device, systems and methods described therein so as to yield the method, devices, kits and systems as set forth in the claims. Moreover, any such a modification would necessarily destroy the intended purpose and function and devices described in Lumb as well as changing the intended manner by which such devices and systems would operate.

In deciding the issue of anticipation, the trier of fact must identify the elements of the claims, determine their meaning in light of the specification and prosecution history, and identify *corresponding elements* disclosed in the allegedly anticipating reference (emphasis added, citations in support omitted). *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, 730 F. 2d 1452, 221 USPQ 481,485 (Fed. Cir. 1984). In concluding that the '770 Patent did not anticipate the claims, the Federal Circuit in *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.*, at 221 USPQ 485-486, further provides that:

The '770 patent discloses an entirely different device,  
composed of parts distinct from those of the claimed invention, and  
operating in a different way to process different materials differently.

Thus, there is no possible question of anticipation by equivalents.

Citations omitted.

It is clear from the foregoing remarks, that the allegedly corresponding elements disclosed in Lumb (*e.g.*, reference numerals 10, 50) do not in fact correspond to the elements of the claimed invention. In particular, the Examiner has not provided any basis upon which one could reasonably conclude that the screws in Lumb correspond (as that term is used above) to an implant device or a part thereof as described in the subject application. It also is clear that the prosthetic system including the arches and screws described in Lumb functions and operates in a different manner from that of the claimed invention. As also indicated above, the method disclosed and taught in Lumb for replacing a natural vertebrae with a prosthetic device and securing the prosthetic device to vertebrae adjacent to the prosthetic device using the arches is completely different from that claimed and taught by Applicants for the arcuate member/implant and/or stabilizing adjacent vertebrae. Thus, there can be no disclosure or teaching in Lumb of Applicants' invention.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, "The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by Lumb.

It is respectfully submitted that for the foregoing reasons, claims 34-38, 60-63 and 73-99 are patentable over the cited reference and thus, satisfy the requirements of 35 U.S.C. §102(b). As such, these claims are allowable.

SEPCIFICATION OBJECTIONS

The Examiner objected to the specification of the subject application (*i.e.*, the ABSTRACT) and requested correction thereof. The following addresses the specific objections of the Examiner.

The ABSTRACT was objected to because of its phraseology. The ABSTRACT was amended in the instant amendment to address the Examiner's objections. Applicants also amended the ABSTRACT so as to be shorter than that presented in the originally filed applicaiton. As such, the ABSTRACT, as amended, is considered acceptable.


It is respectfully submitted that for the foregoing reasons, the specification satisfies applicable Patent laws and rules and, therefore is considered acceptable.

It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Applicants believe that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. **04-1105**.

Respectfully submitted,  
Edwards Angell Palmer & Dodge , LLP

Date: February 8, 2007

By:   
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Source: USPQ, 1st Series (1929 - 1986) > U.S. Court of Customs and Patent Appeals > In re Vogel and Vogel, 164 USPQ 619 (C.C.P.A. 1970)

**In re Vogel and Vogel, 164 USPQ 619 (C.C.P.A. 1970)**

164 USPQ 619

In re Vogel and Vogel

U.S. Court of Customs and Patent Appeals

No. 8198

Decided March 5, 1970

422 F2d 438

**Headnotes**

**PATENTS**

**[1] Words and phrases (►70.)**

"Invention" in 35 U.S.C. 102, 103 does not mean "patentable invention."

**[2] Double patenting - In general (► 33.1)**

First question in analysis of law of double patenting is whether same invention is being claimed twice; 35 U.S.C. 101 prevents two patents from issuing on same invention; "invention" means what is defined by claims, whether new or old, obvious or unobvious; it must not be used in sense of "patentable invention"; "same invention" means identical subject matter; thus, invention defined by claim reciting "halogen" is not same as that defined by claim reciting "chlorine," because former is broader than latter; however, claims may be differently worded and still define same invention; test for "same invention" is whether one claim could be literally infringed without literally infringing the other; if it could be, claims do not define identically the same invention.

**[3] Construction of specification and claims - By specification and drawings - In general (► 22.251)**

In determining meaning of word in claim, specification may be examined; however, especially in nonchemical cases, words in claim are generally not limited in their meaning by what is shown in disclosure; occasionally the disclosure will serve as a dictionary for terms appearing in claims and, in such instances, disclosure may be used in interpreting coverage of claim.

**[4] Disclaimer - In general (► 32.1)**

**Double patenting - In general (► 33.1)**

If same invention is being claimed twice, 35 U.S.C. 101 forbids grant of second patent, regardless of presence of terminal disclaimer; if same invention is not being claimed twice, question arises as to whether any claim in application defines merely an obvious variation of invention disclosed and claimed in patent; in considering question, patent disclosure may not be used as prior art; however, in certain instances, disclosure may be used as dictionary to learn meaning of terms in claim; it also may be used to answer obvious variation question; while it is difficult to try to say what is obvious variation of claim, disclosure sets forth at least one tangible embodiment within claim, and it is less difficult and more meaningful to judge whether that thing has been *modified* in obvious manner; this use of disclosure is not contravention of cases forbidding its use as prior art, nor is it applying patent as reference under section 103, since only the disclosure of invention claimed in patent may be examined; if answer to question is

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no, there is no double patenting and no terminal disclaimer need be filed; if answer is yes, terminal disclaimer is required.

## **[5] Claims - In general (► 20.01)**

Claim is group of words defining only the boundary of patent monopoly; it may not describe any physical thing and may encompass physical things not yet dreamed of.

## **Particular Patents**

### **Particular patents-Packaging Meat**

Vogel and Vogel, Process of Preparing Packaged Meat Products for Prolonged Storage, claim 11 of application allowed; claims 7 and 10 refused.

## **Case History and Disposition**

**Page 620**

Appeal from Board of Appeals of the Patent Office.

Application for patent of Virgil W. Vogel and Paul W. Vogel, Serial No. 338,158, filed Jan. 16, 1964; Patent Office Group 170. From decision rejecting claims 7, 10, and 11, applicants appeal. Affirmed as to claims 7 and 10; *reversed* as to claim 11.

## **Attorneys**

Harvey B. Jacobson and Jacob Shuster, both of Washington D. C., for appellants.

Joseph Schimmel (Fred W. Sherling of counsel) for Commissioner of Patents.

## **Judge**

Before Rich, Acting Chief Judge, Almond, Baldwin, and Lane, Associate Judges, and Matthews, Senior Judge, District Court for the District of Columbia, sitting by designation.

## **Opinion Text**

### **Opinion By:**

Lane, Judge.

This appeal is from the decision of the Patent Office Board of Appeals affirming the rejection of all claims (7, 10, and 11) in appellants' patent application serial No. 338,158, filed January 16, 1964, for "Process of Preparing Packaged Meat Products for Prolonged Storage."

The ground of rejection for each claim is double patenting, based upon the claims of appellants' U. S. patent 3,124,462, issued March 10, 1964, in view of a reference patent to Ellies, Re. 24,992, reissued May 30, 1961. No terminal disclaimer has been filed.

## **The Appealed Claims**

Claims 7 and 10 are directed to a process of packaging meat generally. Claim 10 is illustrative:

10. A method for prolonging the storage life of packaged meat products comprising the steps of: removing meat from a freshly slaughtered carcass at substantially the body bleeding temperature thereof under ambient temperature conditions; comminuting the meat during an exposure period following slaughter while the meat is at a temperature between said bleeding and ambient temperatures; sealing the comminuted meat within a flexible packaging material having an oxygen permeability ranging from  $0.01 \times 10^{-10}$  to  $0.1 \times 10^{-10}$  cc.-mm/sec/cm<sup>2</sup>/cm Hg at 30° C. during said exposure period and before the meat has declined in temperature to the ambient temperature; and rapidly reducing the temperature of the packaged meat to a storage temperature below the ambient temperature immediately following said packaging of the meat.

The invention is based on appellants' discovery that spoilage and discoloration of meat are markedly accelerated if the meat is allowed to reach ambient temperature before packaging.

Claim 11 is directed to a similar process specifically limited to beef.

### Prior Art

The only reference of record is Ellies. Ellies teaches the use of meat-packaging

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material having the oxygen permeability range recited in the claims.

### The Patent

Appellants' patent, which is not prior art, claims a method of processing pork. Claim 1 of the patent is illustrative.

1. A method of preparing pork products, comprising the steps of: boning a freshly slaughtered carcass while still hot into trimmings; grinding desired carcass trimmings while still warm and fluent; mixing the ground trimmings while fluent and above approximately 80° F., mixing to be completed not more than approximately 3 1/2 hours after the carcass has been bled and stuffing the warm and fluent mixed trimmings into air impermeable casings.

### The Board

The board characterized the rejection as follows:

The sole ground of rejection is that claims 7, 10, and 11 are unpatentable over appellants' copending patented claims in Vogel et al., in view of Ellies. This is a double-patenting type rejection, whose statutory basis is 35 U.S.C. 101, as indicated in *In re Ockert*, 44 CCPA 1024, 1957 C.D. 404, 722 O.G. 222, 245 F.2d 467, 114 USPQ 330.

Thus the board viewed this case as involving "same invention" type double patenting. The board then discussed the differences between the appealed claims and the patent claims and found that the former did not define a "patentable advance" over the latter. It is thus clear that the board was not at all dealing with "same invention" type double patenting but with the "obvious variation" type.<sup>1</sup> The board found that the appealed claims merely extended the pork process to beef, and that this was not a "patentable advance." Such language states only a conclusion, since patentability is the very issue to be determined. The board gave the following analysis to support its conclusion:

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<sup>1</sup> [1] The examiner's final rejection and the solicitor's oral argument contend that only a single invention is

involved. They go on to point out the *differences*. Apparently they were thinking that “invention” means “patentable invention.” This has not been the language of the law since January 1, 1953. See 35 U.S.C. 102, 103.

---

We agree with the examiner's reasons for holding the application of the claimed method to beef to be an unpatentable adaptation. In addition, the definition of “sausage” in Webster's 3rd New International Dictionary of 1963, on page 2019 is pertinent:

“sausage-a highly seasoned finely divided meat that is usually a mixture (as of beef or pork) \* \* \*”

The examiner's reasons as stated in his answer were that the process steps are essentially the same, and the choice of beef rather than pork “is of no patentable significance since this would appear to be a judicious choice of available meat products, well within the ordinary skill of the art, and particularly so, in the absence of any unusual or unobvious result.”

The board's use of the dictionary meaning of “sausage,” as above quoted, is apparently intended to show that beef and pork are equivalents. Whatever may be their equivalency in other contexts, the dictionary definition of “sausage” does not show that beef and pork are equivalents in the sense of the invention now claimed. Appellants contend that the examiner and the board used the *disclosure* of the patent as a basis for concluding obviousness. To the effect that consideration of the patent disclosure is improper in testing for obvious-type double patenting, appellants cite *In re Baird*, 52 CCPA 1747, 348 F.2d 974, 146 USPQ 579 (1965).

## Opinion

The proceedings below in this case indicate the advisability of a restatement of the law of double patenting as enunciated by this court.

[2] The first question in the analysis is: Is the same invention being claimed twice? 35 U.S.C. 101 prevents two patents from issuing on the same invention. See, e.g., *In re Boylan*, 55 CCPA 1041, 392 F.2d 1017, 157 USPQ 370 (1968). As we have said many times, “invention” here means what is defined by the claims, whether new or old, obvious or unobvious; it must *not* be used in the ancient sense of “patentable invention,” or hopeless confusion will ensue. By “same invention” we mean identical subject matter. Thus the invention defined by a claim reciting “halogen” is not the *same* as that defined by a claim reciting “chlorine,” because the former is broader than the latter. On the other hand, claims may be differently worded and still define the same invention. Thus a claim reciting a length of “thirty-six inches” defines the same invention as a claim reciting a length of “three feet,” if all other limitations

[3] are identical. In determining the meaning of a word in a claim, the specification

**Page 622**

may be examined. It must be borne in mind, however, especially in non-chemical cases, that the words in a claim are generally not limited in their meaning by what is shown in the disclosure. Occasionally the disclosure will serve as a dictionary for terms appearing in the claims, and in such instances the disclosure may be used in interpreting the coverage of the claim. *In re Baird*, *supra*. A good test, and probably the only objective test, for “same invention,” is whether one of the claims could be literally infringed without literally infringing the other. If it could be, the claims do not define identically the same invention. This is essentially the test applied in *In re Eckel*, 55 CCPA 1068, 393 F.2d 848, 157 USPQ 415 (1968). There the court rejected the idea of “colorable variation” as a comparison category and stated that inventions were either the same, or obvious variations, or unobvious variations. The court's holding in *Eckel* was that same invention means identically same invention.



[4] If it is determined that the same invention is being claimed twice, 35 U.S.C. 101 forbids the grant of the second patent, regardless of the presence or absence of a terminal disclaimer. If the same invention is not being claimed twice, a second question must be asked.

The second analysis question is: Does any claim in the application define merely an obvious variation of an invention disclosed and claimed in the patent? In considering the question, the patent disclosure may not be used as prior art. In *re Boylan*, supra; In *re Aldrich*, 55 CCPA 1431, 398 F.2d 855, 158 USPQ 311 (1968). This does not mean that the disclosure may not be used at all. As pointed out above, in certain instances it may be used as a dictionary to learn the meaning of terms in a claim. It may also be used as required to answer the second analysis question above. We recognize that it is most difficult, if not meaningless, to try to say what is or is not an obvious variation of a claim. A

[5] claim is a group of words defining only the boundary of the patent monopoly. It may not describe any physical thing and indeed may encompass physical things not yet dreamed of. How can it be obvious or not obvious to modify a legal boundary? The disclosure, however, sets forth at least one tangible embodiment within the claim, and it is less difficult and more meaningful to judge whether that thing has been *modified* in an obvious manner. It must be noted that this use of the disclosure is not in contravention of the cases forbidding its use as prior art, nor is it applying the patent as a reference under 35 U.S.C. 103, since only the disclosure of the invention claimed in the patent may be examined.

If the answer to the second question is no, there is no double patenting involved and no terminal disclaimer need be filed. If the answer is yes, a terminal disclaimer is required to prevent undue timewise extension of monopoly.

We now apply this analysis to the case before us.

The first question is: Is the same invention being claimed twice? The answer is no. The patent claims are limited to pork. Appealed claims 7 and 10 are limited to meat, which is not the same thing. Claims 7 and 10 could be infringed by many processes which would not infringe any of the patent claims, Claim 11 is limited to beef. Beef is not the same thing as pork.

We move to the second question: Does any appealed claim define merely an obvious variation of an invention disclosed and claimed in the patent? We must analyze the claims separately.

As to claim 11 the answer is no. This claim defines a process to be performed with beef. We must now determine how much of the patent disclosure pertains to the invention claimed in the patent, which is a process to be performed with pork, to which all the patent claims are limited. The specification begins with certain broad assertions about meat sausages. These assertions do not support the patent claims. The patent claims recite "pork" and "pork" does not read on "meat." To consider these broad assertions would be using the patent as prior art, which it is not. The specification then states how the process is to be carried out with pork. This portion of the specification supports the patent claims and may be considered. It describes in tabular form the time and temperature limits associated with the pork process. Appealed claim 11, reciting beef, does not read on the pork process disclosed and claimed in the patent. Further, we conclude that claim 11 does not define merely an obvious variation of the pork process. The specific time and temperature considerations with respect to pork might not be applicable to beef. There is nothing in the record to indicate that the spoliation characteristics of the two meats are similar. Accordingly, claim 11 does not present any kind of double patenting situation.

Appealed claim 10, supra, will now be considered. It recites a process to be per

**Page 623**

formed with "meat." "Meat" reads literally on pork. The only limitation appearing in claim 10 which is not disclosed in the available portion of the patent disclosure is the permeability range of the packaging material; but this is merely an obvious variation as shown by *Ellies*. The answer to the second analysis question, therefore, is yes, and the claim is not allowable in the absence of a terminal disclaimer. The

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correctness of this conclusion is demonstrated by observing that claim 10, by reciting "meat," includes pork. Its allowance for a full term would therefore extend the time of monopoly as to the pork process. It is further noted that viewing the inventions in reverse order, i.e. as though the broader claims issued first, does not reveal that the narrower (pork) process is in any way unobvious over the broader (meat) invention disclosed and claimed in the instant application. The same considerations and result apply to claim 7.

The decision of the board is affirmed as to claims 7 and 10 and reversed as to claim 11.

- End of Case -

Source: USPQ, 1st Series (1929 - 1986) > U.S. Court of Customs and Patent Appeals > In re OCKERT, 114 USPQ 330 (C.C.P.A. 1957)

**In re OCKERT, 114 USPQ 330 (C.C.P.A. 1957)**

114 USPQ 330

In re OCKERT

U.S. Court of Customs and Patent Appeals

Appl. Nos. 6257-61

Decided June 25, 1957

245 F2d 467

**Headnotes**

**PATENTS**

**[1] Double patenting—In general (► 33.1)**

Rejection on ground of double patenting is proper even if division would have been required if applicant had inserted in a single application the disclosures and claims of his patent and of his instant applications.

**[2] Patentability—In general (► 51.01)**

Statutory requirements as to granting of patents cannot be waived because of exigencies of particular cases.

**[3] Double patenting—In general (► 33.1)**

There is no statutory provision for granting of plurality of patents on single invention; if two patents are to be granted, there must be two inventions.

**[4] Double patenting—Tests of (► 33.9)**

In determining whether claims of application are patentably distinct from those of applicant's patent, it is proper to consider what is disclosed by prior art.

**[5] Double patenting—In general (► 33.1)**

**Double patenting—Tests of (► 33.9)**

Cross-reading of claims is not indispensable to holding of double patenting; if only one inventive concept is present, two patents cannot be granted, regardless of scope or relationship of claims, or of order in which applications were filed or claims presented.

**[6] Double patenting—In general (► 33.1)**

Assuming that examiner was derelict in his duty in not calling upon applicant to maintain clear lines of division between application on which patent later issued and five applications later rejected for double patenting, that fact cannot justify allowance of patents contrary to statute; applicant was cognizant of necessity of maintaining clear lines of distinction between all six applications at the risk, if one issued, of rejection of others for double patenting.

**Particular Patents**

## **Particular patents —Adsorption Process**

Ockert, Continuous Adsorption Process, claims of five applications refused.

## **Case History and Disposition**

Appeals from Board of Appeals of the Patent Office.

Applications for patent of Carl E. Ockert, Serial Nos. 111,111-5, filed Aug. 19, 1949; Patent Office Division 31. From

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decisions rejecting all the claims, applicant appeals. Affirmed.

## **Attorneys**

DOS T. HATFIELD, Washington, D.C. (FRANK S. BUSSE, Philadelphia, Pa., and THEODORE E. SIMONTON, Cazenovia, N.Y., of counsel) for appellant.

CLARENCE W. MOORE (J. SCHIMMEL of counsel) for Commissioner of Patents.

## **Judge**

Before JOHNSON, Chief Judge, and O'CONNELL, RICH, and JACKSON (retired), Associate Judges.

## **Opinion Text**

### **Opinion By:**

RICH, Judge.

These are five appeals from decisions of the Patent Office Board of Appeals affirming rejections by the Primary Examiner of all the claims of each of appellant's applications, Nos. 111,111 to 111,115, inclusive, all filed on August 19, 1949, each rejection being based on the ground of double patenting in view of appellant's patent No. 2,614,133, granted October 14, 1952, on an application filed July 30, 1949. The patent to Olsen, No. 2,585,490, granted February 12, 1952, was also relied on in support of the rejections. While separate records and briefs were filed in each appeal, the issues are so closely related that we shall dispose of all the appeals in a single decision.

The Ockert patent, which forms the primary basis for the rejection in each case, relates to a continuous process for separating organic compounds, especially liquid hydrocarbons, of different adsorbabilities by the use of a finely divided selective adsorbent, such as silica gel or activated carbon. The process involves passing the organic compound in liquid phase and the finely divided adsorbent through a vertical column in opposite directions. In the embodiment shown, the adsorbent passes downwardly from the top of a column defining an adsorption zone, while the organic compound is directed upwardly into the column at an intermediate point. The saturated components of the compound, which are not readily adsorbed, pass out through the top of the column with a comparatively small portion of the desorbing agent while the adsorbent and the unsaturated components which have been adsorbed by it fall to the bottom of the column, whence they are carried by a fluid transporting medium to the top of a second vertical column which defines a desorption zone. The adsorbent and the adsorbed components fall through this desorption zone, where they encounter a liquid desorbing agent which moves upwardly through the zone, from a point near the bottom thereof, and removes the adsorbed components from the adsorbent. The said components pass out at the top of the desorption zone together with the desorbing

agent.

The adsorbent material which reaches the bottom of the second column or desorption zone is carried back by a fluid transporting medium to the top of the adsorption zone for a repetition of the cycle.

The saturate organic compounds drawn from the top of the adsorption zone and the unsaturate organic compounds drawn from the top of the desorption zone are separated in distillation zones from the desorbing agent with which they are associated.

The transporting medium which carries the adsorbent and the unsaturate components from the adsorption zone to the desorption zone comprises material drawn from the top of the desorption zone, while the medium which transports the materials from the bottom of the desorption zone to the top of the adsorption zone is obtained from the top of the adsorption zone. Part of the unsaturate products removed from the distillation zone are returned to the adsorption zone which they enter at a point above the bottom but below the point at which the charge of organic compounds is introduced, while the desorbing agent which is separated from the unsaturate components in the distillation chamber is returned to the desorption zone.

The Olsen patent was relied on by the Patent Office tribunals as showing a continuous adsorption process generally similar to that of the Ockert patent, but with the adsorption and desorption taking place in separate portions of a single vertical column. In the embodiment illustrated by Olsen the adsorption zone is located in the lower part of the column and the desorption zone in the upper, but it is stated in the patent specification that that arrangement may be *reversed* if desired.

The five applications involved in the present appeals disclose processes which are basically similar to that of the Ockert patent, and it is admitted by appellant that "the several applications and the patent have a common novel generic concept." Accordingly, it will not be necessary to discuss in detail the disclosure of each of the applications. It will be sufficient to consider only those differences between the several applications and the patent which are set forth in the appealed claims. This will be done hereinafter in connection with the individual treatment of the several appeals. Our consideration of these matters has been facilitated by a most helpful table of differences included in a supplemental brief filed by appellant and clearly showing the distinctions on which he relies.

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A large number of claims is presented by these appeals and many of them are long and somewhat involved, as will appear below, but the differences between the claims of the patent and those of the applications are comparatively simple. Under these circumstances we need not encumber this opinion with any of the claims. Detailed consideration may be confined to the points of difference.

Before proceeding to a discussion of the individual appeals we shall dispose of certain general questions which are applicable to all of them.

[1] Appellant argues that if he had inserted in a single application the disclosures and claims of his patent and of his applications here involved, division *would* have been required by the Patent Office and that, under such circumstances, a rejection on the ground of double patenting is improper. The same contention was recently made and decided adversely to the applicant in *In re Russell*, 44 C.C.P.A. (Patents) 716, 239 F.2d 387, 112 USPQ 58, for reasons which are equally applicable here.

Appellant further urges that although there is a novel generic concept common to his applications and patent, it has not been possible to draw a patentable generic claim covering that concept, and that the appealed claims and those of the patent are mutually exclusive.

[2] [3] [4] We are sympathetic with appellant, as was the board, in view of the situation in which he finds

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himself, but the statutory requirements as to the granting of patents cannot be waived because of the exigencies of particular cases. 35 U.S.C. 101, like its predecessor R.S. 4886, provides that an inventor may obtain a patent for his invention. There is no statutory provision for the granting of a plurality of patents on a single invention, and this court has repeatedly held that if two patents are to be granted there must be two inventions. *In re Jennings*, 35 C.C.P.A. (Patents) 1163, 167 F.2d 1014, 77 USPQ 613 ; *In re Ward et al.*, 43 C.C.P.A. (Patents) 1007, 236 F.2d 428, 111 USPQ 101 , and cases there cited. It is also well settled that, in determining whether the claims of an application are patentably distinct from those of a patent it is proper to consider what is disclosed by the prior art. *In re Ward et al.*, *supra*; *In re Barge*, 25 C.C.P.A. (Patents) 1058, 96 F.2d 314, 37 USPQ 546 .

[5] Appellant also alleges that the claims of his applications and patent are not cross-readable, and that accordingly the allowance of the appealed claims would not result in any extension of monopoly. Such cross-reading, however, is not indispensable to a holding of double patenting. *In re Ward et al.*, *supra*, and cases there cited. If only one inventive concept is present, two patents cannot properly be granted, regardless of the scope or relationship of the claims, or of the order in which the applications were filed or the claims presented. Whether there is more than one invention in the patent and the five applications, we deal with later.

[6] Appellant also complains that, although the examiner called upon him to maintain a line of division between the five applications involved in these appeals, no similar requirement was made with respect to those applications and the one on which his patent was granted. He points out that he was apparently able to satisfy the examiner as to the requirement actually made and suggests that he might have similarly overcome such a requirement involving the application on which his patent was granted. Appellant, however, was fully cognizant of the fact that he had six applications pending and of the necessity of maintaining clear lines of distinction between all of them at the risk, if one issued, of such a rejection as he has met with. Moreover, even assuming the examiner to have been derelict in his duty, that fact could not justify the allowance of patents contrary to the statute.

For the foregoing reasons we conclude that the rejections for double patenting here under consideration must be *affirmed* unless it appears that the appealed claims are drawn to inventive concepts which are patentably distinct from that defined by the claims of the Ockert patent. We shall, therefore, consider, under headings referring to the individual appeals, those features which are relied on by appellant as establishing such patentable differences.

#### **Appeal No. 6257**

The distinction relied on by appellant between the claims of his patent and those of his application No. 111,111, is that the patent claims call for the use of adsorption and desorption zones in the form of separate columns, while the claims of the application state that the adsorption and desorption zones are located in the upper and lower portions, respectively, of a single elongated column. With the latter arrangement, the adsorbing agent and the adsorbed charge materials pass *by gravity* from the adsorption zone to the desorption zone and accordingly the transporting medium which is used in the patented process for effecting that specific movement is dispensed with.

We are of the opinion that the determination as to whether one or two columns

**Page 333**

are to be used involves merely a matter of choice or design and that it would be obvious to a skilled worker to use one column or two as might be dictated by considerations of convenience or expediency. The adsorption and desorption zones function in the same way, whether or not they are located in a single column. The differences between the claims of the application and patent relate solely to the physical location of parts and the specific means used for transferring fluid from one point to another.

It is true that the patent claims include the step of using a transporting medium obtained from the desorption column for transporting the materials to that column, which step is neither shown nor claimed

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in the application. However, both the application and patent show and claim a corresponding step, involving the use of a transporting medium obtained from the adsorption zone for transferring materials to that zone from the desorption zone, and such a step is therefore a part of the inventive concept common to the application and patent. Under such circumstances, the virtual duplication of that transfer step would be obvious when the columns are so arranged that the materials will not pass by gravity from the adsorption zone to the desorption zone.

It follows that the essential inventive concept underlying the claims of the patent and of application here involved is the same. The difference resides merely in locating the adsorption and desorption zones or columns in one or the other of two obvious relationships, and in adapting the means for transporting material from one zone to the other to the particular zone location selected. In our opinion, the holding of the Patent Office tribunals that the claims here involved are not drawn to an invention distinct from that claimed in the Ockert patent was proper, and the decision of the board in this appeal will be *affirmed*.

#### **Appeal No. 6258**

Application No. 111,112 is similar in all essential respects to application No. 111,111, above considered, except that in 111,112 the desorption zone is located *above* the adsorption zone, in a single column, with a gravity flow between them, and the materials are transferred from the bottom of the adsorption zone to the top of the desorption zone by means of a transporting medium drawn from the latter zone.

Accordingly, application 111,112, involves nothing more than a reversal of zones with respect to application 111,111, which reversal would be obvious to one skilled in the art, especially in view of the Olsen patent which teaches that the adsorption zone may be located above or below the desorption zone, as desired. The decision of the board in Appeal No. 6258 will therefore be *affirmed* for reasons similar to those given above in connection with Appeal No. 6257.

#### **Appeal No. 6259**

Appellant's application No. 111,113 is similar to the Ockert patent in that it discloses a process in which the adsorption and desorption zones take the form of separate, horizontally spaced columns, and fluid is transported from the bottom of each to the top of the other by means of a transporting medium. However, in the patented process the transporting medium used between the bottom of the adsorption zone and top of the desorption zone and top of the adsorption zone is derived from the top of the adsorption zone, whereas in the process of application 111,113 a stream of *desorbing agent* is used as the transporting medium in each case. This difference in transporting media is brought out in the claims of the application and of the patent, and is solely relied on by appellant as constituting a patentable difference between them.

As pointed out in the examiner's answer, each of the transporting media employed in the patented process consists, in part, of desorbing agent and, as noted in the brief for the Commissioner of Patents, the appealed claims do not state that the transporting medium consists of desorbing agent and nothing else. Accordingly, the claims of the application and patent are not mutually exclusive. Moreover, we agree with the statement in the brief for the Commissioner that the record fails to show that there is any significant or unobvious difference flowing from the use, as transporting medium, of desorbing agent alone as distinguished from the mixture of desorbing agent and other materials used in the patented process, or vice versa. We are therefore of the opinion that no patentable distinction can be predicated on the difference between the transporting media of application 111,113, and the Ockert patent, and we affirm the decision of the board in Appeal No. 6259.

#### **Appeals Nos. 6260 and 6261**

The applications in these appeals correspond to those in Appeals Nos. 6257 and 6258, respectively, having the same single column arrangements, but they call for the use of desorbing agent as a transporting medium instead of the mixture of desorbing agent and other materials employed in the

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applications in the appeals last mentioned. For the reasons given in connection with Appeal No.

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6259, where we discussed the transporting media, we conclude that there is no patentable difference between those transporting media. Accordingly, the decisions of the board in Appeals Nos. 6260 and 6261 are *affirmed* for reasons similar to those given in connection with Appeals Nos. 6257 and 6258.

The decision of the Board of Appeals in each of Appeals Nos. 6257 to 6261, inclusive, is affirmed.

WORLEY, Judge, because of illness was not present at the argument of these appeals and did not participate in the decision.

JACKSON, Judge, retired, recalled to participate herein in place of COLE, Judge, absent because of illness.

- End of Case -